REMARKS

This amendment responds to the office action dated August 6, 2009.

The Examiner objected to the specification, contending that the limitation of "a flash mask characterized by the inclusion of those regions of said multi-channel image potentially affected by a flash, and the exclusion of those regions of said image not potentially affected by a flash, irrespective of whether an included or excluded region is within the boundaries of a person's face" lacked an antecedent basis in the specification. The applicant respectfully believes that the Examiner's objection is improper. After reviewing MPEP § 608(o), to which the Examiner cites, this objection is to be drawn to special claim terms that require explanation in the specification, as opposed to entire limitations. For example, were the Examiner to posit that the term "flash mask" was either absent from the specification or used in the claims in a different context than that disclosed in the specification, then an objection might be appropriate. Yet the term "flash mask" both appears in the specification and is used consistently with the manner it is claimed.

Instead, however, it appears that the Examiner's objection is merely that the limitation as a whole does not appear verbatim in the specification. This objection has no basis as the applicant is under no obligation to conform the phrasing of the claims to that of the specification. Aside from the term "flash mask", which is adequately discussed in the specification, the claim limitation to which the Examiner objects simply states in ordinary English what is claimed in a non-confusing manner. The Examiner makes no objection that the limitation is not substantively disclosed in the specification, given that it clearly is. *See, e.g.* Specification at p. 4 line 20 to p. 6 line 11 (describing a flash mask constructed by processing a luminance channel and identifying all those portions of an image affected by a flash) and FIGS. 4A-4E (showing an image after the claimed flash mask is applied in which all regions of the image affected by a flash – face, hands, foreground, etc – are identified). Given that the term "flash mask" is both discussed in the specification and used in the claims consonant with that discussion, there is no term in this claim limitation that requires any antecedent in the specification. The applicant therefore respectfully requests that the Examiner's objection be withdrawn.

The Examiner objected to claim 1 based on a typographical error corrected in the present amendment. The Examiner rejected claims 12-19 under 35 U.S.C. § 112 also due to a typographical error corrected in the present amendment. The applicant therefore respectfully requests that the objection to claim 1 and the rejection of claims 12-19 under 35 U.S.C. § 112 be withdrawn.

The Examiner rejected claims 1-20, 22, and 23 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner's rejection is in contradiction to the recent Federal Circuit decision, *In re Bilski*. Each independent claim recites the limitation of removing a red-eye effect from an image, which is statutory subject matter. Bilski is directly on point:

> [O]ne of Abele's dependent claims [was] drawn to patent-eligible subject matter where it specified that 'said data is X-ray attenuation data produced in a two dimensional field by a computed tomography scanner." The data clearly represented physical and tangible objects, namely the structure of bones, organs, and other body tissues. Thus, the transformation of that raw data into a particular visual depiction of a physical object on a display was sufficient to render that more narrowly-claimed process patent eligible.
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> We further note for clarity that the electronic transformation of the data itself into a visual depiction in Abele was sufficient; the claim was not required to involve any transformation of the underlying physical object that the data represented. We believe this is faithful to the concern the Supreme Court articulated as the basis for the machine or transformation test, namely the prevention of pre-emption of fundamental principles. So long as the claimed process is limited to a practical application of a fundamental principle to transform specific data, and the claim is limited to a visual depiction that represents specific physical objects or substances, there is no danger that the scope of the claim would wholly pre-empt all uses of the principle.

In re Bilski, slip opinion at p. 26. Because each claim transforms a visual depiction of an image, the claims are statutory. The applicant also notes that no other rejection has been made of claims 20 and 22, therefore these claims are allowable, as already indicated by the Examiner.

The Examiner rejected claims 12 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Benati et al., U.S. Patent No. 5,748,764. The Examiner rejected claims 1-5, 7-11, 13, 15, 17, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Benati in view of Koga et al., U.S. Patent No. 5,848,185. The Examiner rejected claim 18 under 35 U.S.C. § 103(a) as being obvious over Benati in view of Liang et al., U.S. Patent No. 6,678,413. The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Benati in view of Liang et al. in view of Luo et al., U.S. Patent No. 7,035,461.

The applicant maintains that the Examiner's rejection is improper for the reasons stated in the applicant's prior response. The Examiner appears to be making the illogical argument that because Benati and the applicant's disclosure are both directed to identifying red-eye, and because both methods apply thresholds to a luminance channel, that the applicant's claim limitations must therefore be disclosed by Benati. In truth, Benati's threshold operation is fundamentally different than that claimed by the applicant in that Benati's threshold values, in all channels, are disclosed as being those values that match red-eye. The claimed flash mask, however, is a precursor to identifying the regions of an image displaying red-eye in that it is only concerned with identifying whatever regions in an image are affected by a flash. Once the claimed flash mask is applied, then the applicant's specification describes the steps necessary to track down the red-eye regions within the area isolated by the flash mask.

Specifically, the applicant's argument of record is that the rejected claims recite the limitation of "a flash mask characterized by the inclusion of those regions of said multi-channel image potentially affected by a flash, and the exclusion of those regions of said image not potentially affected by a flash, irrespective of whether an included or excluded region is within the boundaries of a person's face" and that Benati's threshold values will not meet this test given that each of the threshold values is targeted to identify the ultimate red-eye color. Given that a person's eyes are, by definition, within a person's face, the applicant thus argues that Benati teaches against the applicant's limitation.

The Examiner's responses to this argument are either factually incorrect or irrelevant. The Examiner first asserts that the "instant application does the same thing" as Benati, citing p. 4

lines 23-25 and page 5 of the applicant's specification. This is factually incorrect, as easily evidenced by FIGS 4A-4E, which show the procedures described on these pages of the specification. Unlike Benati, which sets threshold values to try to target red-eye directly, the described flash mask identifies the much larger region of the area of the image affected by the flash, which as easily seen in these drawings encompasses much more than a person's eyes. Thus, the Examiner cannot maintain that the applicant's flash mask is identical to Benati's threshold operation.

The Examiner also argues that the specification does not describe a flash mask that identifies flash regions "irrespective of whether an included or excluded region is within the boundaries of a person's face." Again, FIGS. 4A-4E factually disprove the Examiner's assertion.

The Examiner argues that both the instant application and Benati focus on finding red-eye regions. This argument is irrelevant. The inquiry is whether Benati or the other cited references teach or make obvious the method steps claimed that accomplish the applicant's goal of identifying red-eye. That Benati also discloses a means of identifying red eye does not satisfy the Examiner's obligation to show that the prior art discloses the steps claimed by the applicant.

The Examiner also argues that Benati's luminance threshold, if applied separately without the hue and saturation thresholds, would meet the applicant's claim limitations. It would not. Though those threshold values, if applied separately would identify regions outside a persons's face, the identified regions would not be "characterized by the inclusion of those regions of said multi-channel image potentially affected by a flash, and the exclusion of those regions of said image not potentially affected by a flash." Instead, the luminance threshold values, if applied separately would include many regions of an image not affected by a flash, and would also exclude many regions of an image that were affected by a flash. The Examiner has made no effort to show that the luminance threshold range of Benati, i.e. between 40 and 166 meets the applicant's claim limitation. In fact, just from viewing this range you can see that it will not if for no other reason that very bright regions of the image, say from a flash affecting a light shirt, will not be included in Benati's threshold range. Benati's threshold range is calculated to target the luminance range of a person's eye when it is affected by a flash, hence it cannot be

said to be "characterized by the inclusion of those regions of said multi-channel image potentially affected by a flash . . . irrespective of whether an included . . . region] is within the boundaries of a person's face."

For each of these reasons, the applicant respectfully requests that the Examiner's respective rejections of claims 1-5, 7-15, 17-19 and 23 be withdrawn.

In view of the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of claims 1-20, 22, and 23.

Respectfully submitted,

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Date

Kevin L. Russell
Reg. No. 38,292
Tel No.: (503) 227-5631